Benjamin J. Otto (ISB No. 8292)
710 N 6th Street
Boise, ID 83701
Ph: (208) 345-6933 x 12
Fax: (208) 344-0344
botto@idahoconservation.org

Attorney for the Idaho Conservation League

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S 2015 INTEGRATED RESOURCE PLAN.	CASE NO. IPC-E-15-19 IDAHO CONSERVATION LEAGUE'S COMMENTS

Idaho Power's 2015 Integrated Resource Plan (IRP), in both process and substance, is a substantial improvement over past planning efforts. Specifically, the 2015 IRP contains a robust consideration of future coal plant operations, uses better data for future supply-side options, and considers a range of compliance options for the Clean Air Act 111(d) rule. In each of these areas, ICL commends Idaho Power for working collaboratively with stakeholders and thinking creatively about analytical inputs and methods. Additionally the pilot projects Idaho Power commits to pursue in this IRP are innovative opportunities to explore promising options to improve service while reducing costs customers. The 2015 IRP process was markedly more collaborative and innovative than prior years.

These comments acknowledge and explain the excellent parts of this IRP: the analysis of coal units, the cost and performance of solar, and compliance options for the Clean Air Act 111(d) rule. Part two of these comments addresses two places where the IRP needs improvement: the consideration of energy efficiency and the selection of the final portfolio. ICL closes with specific recommendations for the Commission to adopt.

I. IRP Successes

The highlight of this IRP is the careful consideration of the load and resource balance. As described further below, Idaho Power developed a range of balances to capture various potential futures. Since the planning process is a forecast, considering a range of possible futures is good practice. ICL also appreciates that Idaho Power includes existing energy efficiency and demand response programs as a committed future resource through out the planning period.[1] In terms of supply-side resources in general, the IRP considers a wide range of resources as typically uses third-party assessments of their characteristics and costs. These are all strengths of the 2015 IRP.

A. Coal Unit Analysis

Coal plant operations are a major issue in resource planning around the country as plants near the end of their useful life and face increasingly stringent pollution controls. The new Clean Air Act 111(d) is just another example of the need to carefully consider the options to find the least cost, least risk manner to provide affordable and reliable service. In this IRP, Idaho Power develop a methodology to consider this issue that should be a best practice for utilities around the country. By developing different load and resource balances reflecting the retirement of each Valmy unit and two of the Bridger units, Idaho Power recognizes coal plants are part of the overall system.[2] This is an accurate representation of how a coal retirement impacts the overall system, and how existing system resources may fill in some of the replacement needs. By developing additional load and resource balances with varying retirement dates, Idaho Power can begin to identify the balance between lower pollution and costs. This information can inform negotiations with utility and air regulators over specific compliance plans. Then, by applying more than one resource portfolio for each of the nine load and resource balances, Idaho Power

[1] 2015 IRP at 93.
[2] 2015 IRP at 92 – 94.

can identify the least cost option to replace any retired generation. These three steps—unit specific analysis in the system, varying retirement dates, and considering a range of replacement options—create a robust and complete method to analyze coal's future.

B. Solar Performance and Costs

The performance and cost of solar power is another key topic for utility planning. In the 2015 IRP Idaho Power worked with stakeholders to develop a robust method for assigning a peak capacity contribution for solar.[3] Using 5-minute interval generation profiles and correlating this with the specific high load hours on the system calculates an accurate result unique to Idaho Power's service territory. The method uses a very conservative 90% exceedance factor when making this correlation. While this aligns with other peak hour forecasts, ICL encourages Idaho Power to consider whether planning to be wrong 90% of the time is an appropriate metric as opposed to a 70% factor used for energy planning.

As for the capital cost of solar, while ICL generally agrees with Idaho Power's use of the *Lazard Levelized Cost of Energy* report, the solar costs derived therefrom of between $109 and $118 per MWH[4] appear to greatly exceed current costs seen in the market place. Department of Energy[5] calculates a current price between $50 and $75 per MWH and NVEnergy[6] is signing Power Purchase Agreements below $40 Mwh. With Idaho's excellent summer solar irradiance and relatively low cost of permitting, solar prices here should be at the lower end of national estimates. But even with this disparity between Idaho Power's calculation and what is seen in the market place today Figure 7.8 on page 91 of this 2015 IRP shows that solar is cost competitive, on a levelized basis, with a CCCT plant right now.

---

[3] 2015 IRP at 50-51.
[4] 2015 IRP at Figure 7.6, 89.
[5] http://energy.gov/sites/prod/files/2015/02/f19/DOE_LPO_Utility-Scale_PV_Solar_Markets_February2015.pdf
[6] http://www.utilitydive.com/news/nv-energy-buys-utility-scale-solar-at-record-low-price-under-4-centskwh/401989/

C. Clean Air Act 111(d) Compliance Options

The 2015 IRP contains a thorough consideration of compliance options for the Clean Air Act 111(d) limits on carbon pollution. In prior years, the IRP used a carbon adder to capture the cost of potential future carbon limits. Now that the Environmental Protection Agency has devised a specific standard, modeling various compliance pathways is a more accurate representation on the future cost of carbon controls. However, ICL notes that the cost to meet carbon pollution controls is not the same thing as the cost of carbon pollution. Meeting the pollution standard is just one part of the total cost of carbon. Other costs include: impacts to the hydroelectric system and energy demands due to changes in rainfall and temperature patterns; the public health impacts of hotter drier weather; the increasing severity and frequency of wildfires that could threaten remote generation or transmission lines. In the next IRP cycle ICL recommends Idaho Power explore ways to account for these impacts to utility operations and ultimately customer costs.

Idaho Power did a thorough job of modeling potential compliance options for the Clean Air Act 111(d) pollution limits. While at the time of the IRP development the rule was in draft form, ICL supports the method of considering both rate-based and mass-based standards, state specific and system wide compliance, and various capacity factors for Langley Gulch.[7] Because the rule provides states with a wide range of compliance options, this expansive look will help determine a least cost pathway for Idaho's ultimate state plan. We appreciate the Company analyzing how the top preforming portfolio options would perform under these various compliance pathways.[8] We note that Portfolio 9 is the least cost portfolio regardless of compliance pathway.

---

[7] 2015 IRP at 114 – 116.
[8] 2015 IRP at 117.

Now the rule is finalized and requires different pollution limits for each state. Other plan components remain the same, or provide greater compliance flexibility. Selecting a mass-based or emission-based limit is clearly allowed. The rule facilities and encourages multi-state trading programs. The plan provides early action credit for specific renewable and energy efficiency measures. ICL recommends Idaho Power update the Clean Air Act 111(d) analysis as soon as possible and definitely before the 2017 IRP. The state of Idaho must submit a draft compliance plan, or request and extension by September 6, 2015. Based on ICL's reading of the rule, to request an extension the state must provide an indication of the expected compliance pathway. Updating Idaho Power's analysis of compliance options is a critical input to this process. ICL recommends Idaho Power update the analysis by, at the very least, updating the pollution limits, treatment of renewable energy, and the trading opportunities assumed in the 2015 IRP.

II. IRP Improvements

A. Energy Efficiency

As in prior years, the 2015 IRP includes the load and resource balance impacts of forecasted energy efficiency savings. Including future efficiency savings is critical to forecasting an accurate load and resource balance. But like any forecast, the quality of the predictions and assumptions are critical to ensure accuracy. Idaho Power uses a third-party assessment of energy efficiency potential as the source of this forecast.[9] ICL specifically supports the use of this third-party efficiency study that forecasts the technical, cost-effective, and achievable potentials.

Where we disagree with Idaho Power is about the achievable potential level used in setting the load and resource balance. Idaho policy and Commission orders require utilities to pursue all cost-effective energy efficiency. The third-party study identifies the cost effective potential available in Idaho Power's service territory throughout the planning period. The study then

[9] 2015 IRP at 43-46.

identifies a lesser amount deemed achievable. The achievable level is "calculated" by applying numerical ramp-rates that reflect assumptions about "market maturity", "customer preferences", and "expected program participation". Each of these factors are not static realities, they are factors Idaho Power can influence and overcome through improved program design, marketing, and customer engagement. While the achievable potential is what can be expected assuming no effort to address the assumptions, pursing all cost effective energy efficiency requires overcoming these hurdles. Through the IRP process, Idaho Power could identify the amount of efficiency between the achievable and cost-effective level the Company should strive to acquire. For the 2017 ICL recommends Idaho Power develop a method to identify the optimal amount of efficiency to acquire over the planning cycle.

ICL does not support the method used in the 2015 IRP to consider additional new efficiency resources. Idaho Power just applied a Total Resource Cost result of 0.8 instead of 1.0.[10] This method begins by assuming the Company will pursue non-cost effective savings-a bad policy for everyone. ICL recommends Idaho Power not continue this methodology. Instead for 2017 ICL recommends Idaho Power use the gap between the achievable and cost effective efficiency potential.

One way to accomplish this is to identify the amount, types, and costs of energy savings that are in the gap between the achievable and cost effective potential. The achievable potential is already included in the load forecast. The remaining cost-effective potential can then be grouped by load shape and cost into bundles of potential resources. These bundles can then be included in resource portfolios. If the selected portfolio includes additional efficiency beyond the achievable level, then the Company can work with the Energy Efficiency Advisory Group to identify the hurdles assumed to limit uptake and devise strategies to acquire the resource. This would treat efficiency in the same manner as supply side resources; existing resources set the load forecast,

[10] 2015 IRP at 46.

new resources are chosen, and the Company then sets about acquiring those resources through Requests for Proposals and other planning actions. Of course marketing budgets are not unlimited, but by including some additional cost in the new efficiency resource bundle to reflect acquisition costs, this method would achieve the acknowledged IRP goal of treating supply and demand side resources equivalently.

B. Final Portfolio Selection

While ICL acknowledges the significant improvements made in the 2015 IRP, we note the final resource portfolio Idaho Power intends to pursue is not the least cost, least risk option based on quantifiable data and analysis, portfolio 9. Instead, Idaho Power selected portfolio 6(b), which lands in the middle of the pack based on quantifiable information, but the Company selected based largely on qualitative factors.[11] In this section, ICL explains the qualitative cost and risk results that establish portfolio 9 as the clear least cost, least risk option. Then ICL discusses the qualitative factors Idaho Power relied on to select portfolio 6(b) and recommends strategies to minimize these factors to show that the Company should instead pursue portfolio 9.

Based on the fixed and variable costs, Idaho Power's preferred portfolio is not the first, second, or even third least cost option, but the eighth. Table 9.3 on page 117 shows the net present value of the fixed and variable cost for each portfolio. Company's preferred portfolio 6(b) has both higher variable and fixed costs the least cost realistic option portfolio 9.[12] Adding the fixed and variable costs together shows portfolio 6(b) is $74,583,000[13] more expensive than portfolio 9.

---

[11] 2015 IRP at 130.

[12] P1, while appropriate to include for context, is not a viable option because it assumes no impact from the recently finalized Clean Air Act section 111(d) rule. Until formally repealed or otherwise rejected it is inappropriate to select a plan that would not attempt to comply with existing law.

[13] P6(b) total fixed and variable costs = $4,595,171; P9 total fixed and variable costs = $4,520,588.

Turning to quantified risks, Figure 9.2 on page 123 shows the potential for year-to-year cost variability. Portfolio 3 is clearly the least risky, while portfolios 6(b) and 9 are essentially the same and in the middle of the pack. Figure 9.1 on page 122 shows the results of the stochastic analysis of the top preforming portfolios, which considers variability of gas prices, loads, and river flows. While difficult to quantify from the graph, the preferred portfolio 6(b) is consistently more risky than several other options.[14] What is clearly seen, and as Idaho Power acknowledges, is that portfolio 9 "is the least-cost portfolio for the full set of 100 iterations."[15] Based on quantifiable and risks Idaho Power's preferred portfolio 6(b) falls in the middle of the pack, while portfolio 9 is the least cost, least risk option for customers.

Despite these results, the final portfolio selection is based largely on "qualitative risk" factors, which Idaho Power admits, "are more difficult to assess."[16] Of course, not all risk can be quantified and some factors can only be assessed qualitatively. Where the 2015 IRP breaks down is a lack of discussion and consideration of the likelihood and severity of each qualitative risk factor and by not identify strategies to avoid or minimize these risks. The 2015 IRP does this analysis for quantitative risks, such as addressing gas price uncertainty by including a range of price forecasts, selecting a planning forecast based in on the likelihood of it being accurate, and tying this risk to the hedging practices adopted by the company. ICL recommends that Idaho Power apply a more robust consideration of qualitative risk factors and potential avoidance and minimization strategies in the 2017 IRP.

Idaho Power identifies several qualitative risks. First, the Company identifies water-supply risks beyond those captured in the stochastic modeling of hydro variability.[17] Some of these risks are admittedly hard to predict, such as changes to irrigation demands and Brownlee

[14] The IRP does not contain the numerical results for the stochastic risk assessment, just the graph on page 122.
[15] 2015 IRP at 123.
[16] 2015 IRP at 130.
[17] 2015 IRP at 126.

flood control due to climate change. And for these factors, Idaho Power does not have many options to minimize the risk, other than reducing climate change causing carbon pollution. Others factors are uncertain, such as changes to flow augmentation and aquifer management, but allow for much greater Company control by developing strategies to improve modeling efforts and engage in water management decisions. A similar water supply risk factor is potential impacts to hydro operations form Hells Canyon Complex relicensing.[18] Here Idaho Power merely states that loss of system flexibility will present a challenge. What is missing from the discussion of water supply risks is any attempt to identify the range of uncertainty, options to address this uncertainty, and importantly why this qualitative risk factor supports selecting portfolio 6(b) over other lower cost, lower risk options. It is the existing hydro system that will cause water supply impacts to be felt by customers and none of the portfolios considered appreciably change the use and reliance on the existing hydro system.

Second, Idaho Power identifies, as a qualitative risk, potential impacts to fossil fuel generation from the Clean Air Act 111(d) limits on carbon pollution. It is true at the time of the 2015 IRP the 111(d) limits were not finalized and therefore created considerable uncertainty. Idaho Power, to their credit, did attempt to quantify the potential costs of meeting the Clean Air Act 111(d) limits on carbon pollution.[19] ICL strongly supports this effort and appreciates the Company's willingness to model a range of potential compliance pathways against all the potential portfolios. While this analysis is based on the draft rule, this exercise is a robust effort to quantify this major source of future uncertainty. Importantly looking at the quantified results portfolio 6(b) is never the least cost option while portfolio 9 is always the least cost option. Idaho Power does not explain why the qualitative risk of 111(d) uncertainty supports selecting a more expensive portfolio in terms of both system costs and costs to comply with the rule.

---

[18] 2015 IRP at 126 -127
[19] 2015 IRP at 118 - 122.

A third qualitative risk is regulatory risk.[20] Here Idaho Power points to the public IRP process as developing understanding and support for "resource additions and removals when the plan is submitted for approval."[21] While true, again the Company does not explain how this qualitative risk supports selecting a more expensive and more risky portfolio. In fact building public understanding and support is easier when selecting quantifiably cheaper and safer options.

A fourth risk is compliance with nitrogen oxide pollution standards at Jim Bridger units 1 and 2.[22] ICL notes that some of this risk is due to ongoing litigation over the federal portions of Wyoming's state implementation plan for regional haze; litigation Idaho Power is a party too. However, to the Company's credit, the discussion of this risk factor does explain how the uncertainty relates to specific portfolio options. To improve this discussion ICL recommends Idaho Power also discuss the range of uncertainty, likelihood of potential outcomes, and explain their strategies to minimize this risk.

Turning to risks associated with new generation options, Idaho Power identifies resource commitment as a risk factor, particularly the uncertain timing of when the Company must commit to build a new resource.[23] Again, this discussion makes no attempt to consider the range or likelihood of various outcomes, nor identify any strategies to mitigate this risk. One obvious strategy is to select portfolios containing resources that can be developed in smaller increments, so as to better match demand growth, and with shorter lead times. Comparing portfolio 6(b) to 9, both rely on Boardman to Hemingway coming online in the same year, and a major natural gas plant within one year of each other. Because these two resources are the major source of cost impacts, in reality this risk factor is equal for the two portfolios. Portfolio 9 does plan for an earlier expansion of demand response programs, but this is an incremental addition to an

[20] 2015 IRP at 127.
[21] *Id.*
[22] 2015 IRP at 127.
[23] 2015 IRP at 127.

existing program, so the risk is comparatively low. In fact, the only major difference between the portfolios is the timing of closing one Valmy unit. But the uncertainty of when to commit to this choice is mostly resolved by the quantitative results showing early retirement is cheaper and less risky for customers. Because it is cheaper and less risky Idaho Power should choose today to commit to retire Valmy unit 1 in 2019 and unit 2 in 2025.

The timing and certainty of PURPA development is another risk factor.[24] As Idaho Power notes between the development of the load and resource balance and the final portfolio selection 141 MW of expected PURPA solar projects terminated their contracts. However, Table 9.5 shows this change had no appreciable impact on the load and resource balance. So, the severity of this uncertainty, at this stage, is minimal. As for future contract termination, Idaho Power does have some influence over this through the interconnection process, a notoriously opaque and complex issue. To help mitigate some of this uncertainty Idaho Power could devise and disclose efforts to facilitate interconnection processes paid for by the project developers. Going forward, future uncertainty beyond the construction of projects with signed contracts is virtually eliminated by the recent decision to shorten contact terms to just two years. More importantly for the present IRP Idaho Power does not explain how selecting portfolio 6(b) helps address this uncertainty as opposed to portfolio 9, which includes flexible and disbatchable reciprocating engines.

The Boardman to Hemingway (B2H) Transmission line is the largest resource being considered in this IRP and the timing and cost of this resource is a source of considerable uncertainty.[25] However, both portfolio 6(b) and 9 include B2H in the same year and at the same cost. So, the timing alone is not a reason to select one option over the other. The difference between the portfolios is the timing of closing Valmy Unit 1, four years prior to B2H in portfolio 9 and in the same year as B2H in portfolio 6(b). The resource deficiency charts on pages 95 and

[24] 2015 IRP at 128.
[25] 2015 IRP at 129.

96 show that for monthly average energy in both July and December staggering Valmy retirement in 2019 and 2025, does not change the timing or scale of replacement resource needs compared to a non-staggered 2025 retirement. For peak hour needs, staggering retirement does create an earlier resource deficiency, but portfolio 9 mitigates this uncertainty by planning for incremental and relatively short construction time resources, demand response and reciprocating engines at a lower cost than portfolio 6(b) non-staggered retirement. In short, while B2H timing is uncertain, this uncertainty does not support choosing a more expensive portfolio, 6(b) that faces the same risk as portfolio 9.

Continued reliance on wholesale market purchases to meet customer demand exposes Idaho Power to the risk of regional resource adequacy.[26] Relying on B2H as a major resource will increase exposure to the risk of regional resources not being adequate to supply the wholesale power imported over this line. While the 2015 IRP includes this in the qualitative risk category, it is actually quantified by the Resource Adequacy Advisory Forum as a Loss of Load Probability. Regardless, since both portfolio 6(b) and 9 rely on B2H and associated market purchases at essentially in the same time and scale, this source of uncertainty does not inform which portfolio is the better option. Idaho Power's own Loss of Load Probability results show some minor differences between portfolio 6(b) and 9, but the differences cut both ways and never approach the standard of 5%.[27] Resource adequacy is not a reason to select the more expensive portfolio 6(b).

Idaho Power identifies the risk of not achieving the demand side management targets included in the load and resource balance.[28] However, the Company has years of experience implementing programs and, through the Energy Efficiency Advisory Group, and ongoing effort

---

[26] 2015 IRP at 129.
[27] 2015 IRP at Appendix C page 168 (showing results for P6(b) and page 169 (showing results for P9).
[28] 2015 IRP at 130.

to improve program delivery and performance. More to the point, the level of energy efficiency in the load and resource balance is exactly the same for all portfolios, so this uncertainty does not inform which portfolio is the least cost, least risk option. Regardless of the chosen portfolio, Idaho Power could minimize the uncertainty of DSM program performance by working with EEAG to develop a multiyear implementation plan that identifies specific strategies to acquire this resource.

The last qualitative risk Idaho Power discusses is uncertainty about the performance and cost of new technologies.[29] While this is generally a real risk, in regards to choosing between the least cost portfolio 9 and the more expensive portfolio 6(b), this risk factor supports selecting portfolio 9. Portfolio 9 relies on demand response, a resource the Company currently successfully operates, and reciprocating engines, a gas-fired dispatchable resource available today in the marketplace. Portfolio 6(b) relies on demand response and Ice-based Thermal Energy Storage, a relatively unique resource for the region. ICL supports Idaho Power's commitment to an ice-based storage pilot program that will inform the Company of the costs and operations of this technology. But in terms of picking portfolios, portfolio 9 relies on more familiar technologies and therefore is less risky.

While not discussed in the IRP section on qualitative risks, another uncertainty about closing Valmy Unit 1 in 2019 versus 2025 is the ability to align with the plant co-owner NVEnergy.[30] However, this is an uncertainty Idaho Power can influence by negotiating directly with NVEnergy. Moreover, this does not appear to be a large range of difference. In commenting on the 2013 IRP Idaho Power stated NVEnergy's current depreciation rates for Unit 1 are based on an end-date of 2021, just two years different than 2019, and 2025 for Unit 2, which is the same

[29] 2015 IRP at 130.
[30] 2015 IRP at 10.

in the Idaho Power analysis.[31] Because NVEnergy's planed depreciation dates are essentially the same as the dates identified as the least cost option for Idaho customers, Idaho Power should be able to successfully negotiate a resolution that is best for Idaho ratepayers.

This alignment of deprecation schedules is related to another risk raised by Idaho Power—customer acceptance of accelerated depreciation. However, accelerating deprecation is not a requirement, rather a policy choice. The requirement is for regulators to give a utility an opportunity to recover capital invested and the approved rate of return. The policy choice is about which customers should pay these bills. Traditionally the policy is for customers who enjoy the benefit of the resource, energy and capacity, provide the return of and on the capital invested. But the major reason to close coal plants early is to avoid costly harms to human health and the environment. Thought of this way, the benefit received from plant closure actually accrues to future ratepayers, and thus not accelerating depreciation is a legitimate policy choice—future ratepayers can pay for the benefit of cleaner air. In making this choice regulators can create a regulatory asset with a specific lifespan that will provide the utility with certainty they will have an opportunity to recover their investment. But even without making this policy choice about accelerating depreciation, closing Valmy by 2019 will deliver savings to customers. Idaho Power states closing the entire plant in 2019 will result in $86,000,000 in net savings for customers just from avoided O&M, capital investment, and financing, not to mention the improved human health due to cleaner air and a stable climate.[32]

ICL recommends the Commission direct Idaho Power to begin immediately taking necessary steps to close Valmy Unit 1 by 2019 and Unit 2 by 2025 at the latest. The IRP documents that portfolio 9 is quantifiably the least cost, least risk option, resulting in roughly $74.5 million in lower costs to customers than portfolio 6(b) and clearly lower risks attributable

[31] Idaho Power Reply Comments at 5, IPC-E-13-15.
[32] 2015 IRP at 9 (showing shutdown in 2019 will cost $95 million in accelerated depreciation it will avoid $181 million in costs to keep the plant operating into the 2030's.)

to gas, load, and hydro volatility. None of the qualitative risk factors support selecting portfolio 6(b) over this least cost, least risk option. The public and regulators should be more likely to accept a quantifiably cheaper option. Uncertainty about river flows and Hells Canyon relicensing is the same for both portfolios. Compliance with nitrogen oxide regulations at Jim Bridger are not a factor for Valmy retirement dates. The load and resource balance each portfolio seeks to address includes the same level of PURPA and energy efficiency. Both portfolios have essentially the same loss of load probability. The closure dates in portfolio 9 align with NVEnergy's depreciation schedule. Some qualitative risks favor portfolio 9: it relies on technologies that are more common and was consistently the least cost compliance pathway for the 111(d) rule. And since both Idaho and Nevada's carbon reduction targets are less stringent in the final plan versus the draft plan, this 111(d) is likely to remain valid.[33]

The remaining uncertainty is about the timing of B2H related to Valmy closure, but since both portfolios rely on the same B2h date, this risk is equivalent for each option. The quantitative analysis shows portfolio 9 has resources to cost effectively replace unit 1 output beginning in 2020 until B2H comes online in 2025. As we have seen with the Boardman closure, making an early commitment to retire the plant provides amble time to establish the necessary agreements and identify replacement resources. For Valmy, the facts show that today is the time to make this commitment.

Conclusion

The 2015 IRP is a substantial improvement on past planning process. The coal unit analysis, consideration of solar performance and costs, and Clean Air Act 111(d) options all demonstrate Idaho Power worked collaboratively and creatively in developing this plan. Based on

[33] Draft plan goals for Nevada of 697 lbs/mwh by 2020 and 647 lbs/mwh by 2030 changed in the final plan to 942 lbs/mwh and 855 lbs/mwh. Idaho's draft plan goals of 244 lbs/mwh to 228 lbs/mwh changed in the final to 832 lbs/mwh to 771 lbs/mwh.

thorough participation in the IRP development process and review of the final plan ICL recommends the following:

- Reconsider the use of a 90% exceedence factor for solar capacity credit.
- Devise methods to account for the full cost of carbon pollution, particularly impacts to the hydro system and loads.
- Improve the consideration of energy efficiency as a resource in future IRPs.
- Continue to develop the pilot projects for solar on feeders and ice-based storage.
- Continue to work with stakeholders to devise a customer demand driven community solar program.
- Immediately update the Clean Air Act 111(d) compliance option analysis based on the final rule.
- Immediately take steps to pursue closing the Valmy Unit 1 by 2019 and Unit 2 by 2025 at the latest.

Respectfully submitted this 5th day of October 2015

Benjamin J. Otto
Idaho Conservation League